

## Abstract

**[0062]** A membrane valve wherein the shutter disk is retained in contact with the valve seat during ejection of liquid or gas by means of one or more ribs that are substantially in contact with the shutter disk along one or more lines secant to the shutter disk and/or by means of one or more rows of secondary clamping pins that are engaged in matching openings on the valve seat. Further, a second stage pressure reducer for two-stage underwater regulators incorporating a membrane valve wherein the shutter disk is retained in contact with the valve seat during exhalation of gas by means of one or more ribs that are substantially in contact with the shutter disk along one or more lines secant to the shutter disk and/or by means of one or more rows of secondary clamping pins that are engaged in matching openings on the valve seat.